REPORT

OF THE

Montana State Live Stock Sanitary Board and State Veterinarian

FOR YEARS

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ALLIED PRINTING TRADES LABOR UNION COUNCIL HELENA

MONTANA LIVESTOCK SANITARY BOARD.

T. C. Power, President, Helena, Mont.
H. H. Sappington, Vice-President, Sappington, Mont.
Dr. D. J. Donohue, Member, Glendive, Mont.
Dr. M. E. Knowles, Secretary, Helena, Mont.

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Dr. A. J. DuFrene, Glendive, Mont.
Dr. Z. C. Boyd, Chinook, Mont.
Dr. C. H. Stevens, Missoula, Mont.
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Dr. O. L. DeVore,Bozeman, Mont.
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Dr. W. J. Butler, Miles City, Mont.
Dr. C. J. Willgans, Miles City, Mont.
Dr. J. R. Ward, Missoula, Mont.
Dr. W. C. Orr, Dillon, Mont.
Dr. A. C. Morrow, Dillon, Mont.

CHEMIST AND BACTERIOLOGIST.

Dr. Emil Starz, Helena, Mont.

W. K. Converse, Chief Clerk.
T. F. Myers, Stenographer.

Report.

December 1, 1912.

Honorable Edwin L. Norris,
Governor of the State of Montana,
Helena, Montana.

Sir:

We herewith submit report of the State Veterinarian covering the work of this department, which we commend to your earnest consideration.

The Board, during the past year, found it necessary to have three meetings, at which various matters concerning livestock industry were discussed. The unfortunate death of our most esteemed president, Dr. William Treacy, was a severe blow to our organization, as well as a loss to the entire state. His death brought about the selection of a new president of the State Board of Health, who, by action of law, is made a member of this Board. We are fortunate in having selected for this position, Dr. D. J. Donohue, of Glendive, who has been most active in his consideration of the various matters concerning the Sanitary Board.

We, as a Board, respectfully recommend to the incoming Legislature, through you, the establishment of a hog cholera serum laboratory, for the very excellent reason that this disease is on the increase in Montana. We believe, as is stated in the Veterinarian's report, that every encouragement possible should be offered to this industry, which is destined, in the near future, to become one of our most important.

Hog cholera serum is a certain preventive of this devastating and fatal disease. Its general employment would make the swine industry as safe and reliable as that of horses, cattle or sheep.

We, also, recommend, through you, to the incoming Legislature, sufficient appropriation to make partial payment for the slaughter of animals suffering from dangerously contagious and necessarily fatal diseases, such as tuberculosis in cattle; dourine and glanders in horses. We particularly recommend, since the Government has set the example of compensating

owners of horses suffering from dourine, that an adequate appropriation be made covering slaughter on this account.

Respectfully submitted,

T. C. POWER,

Chairman, Livestock Sanitary Board.

Helena, Montana, December 1, 1912.

To the Honorable Livestock Sanitary Board,

Helena, Montana.

Gentlemen:

I have the honor to herewith present report of this office covering the past two years.

Devastating, communicable, animal disease is the most inimical of all agents to the welfare of agriculture. The most intelligent nations are those giving closest and most careful attention to preservation of animal health. Sanitary laws of Montana, although not perfect, have enabled the Sanitary Board to adequately protect animal health within the boundaries of this State, and it is beyond question of doubt that Montana is the freest of any state in the Union from communicable animal disease.

The sub-joined tables give in detail the vast amount of work accomplished by this Department.

Dourine.

Unfortunately, dourine, (maladie du coit), the so-called French venereal disease of solipeds, was discovered in the Eastern part of our State late in the summer by Deputy Veterinarian Cheney, who, I must say in all fairness, has suspected the existence of this disease in Dawson and Custer Counties during the past two years. One case in particular, Dr. Cheney suspected, was examined by several federal experts; however, the clinical picture was not sufficient to justify diagnosis, upon which we would be enabled to determine positive existence of this disease; until the Bureau of Animal Industry kindly negotiated the compliment-fixation test, (which is positive and reliable.) So far, (jointly with federal authorities) we have destroyed nineteen horses; and have, at the present time, several suspects in quarantine. In conjunction with Eastern Montana Horse Growers' Protective Association, now, and for some time past, have had Mr. H. C. Farnum (who is compensated by the Eastern Montana Horse Growers' Protective

Association) ride the scheduled district covered by following lines, for the purpose of ascertaining whether or not the Sanitary Board Order regarding taking up of range stallions in this district is being complied with:

"Helena, Montana, October 27, 1912.

To Whom It May Concern:

At a meeting in Miles City, on Monday, October 15, 1912, between the Eastern Montana Horse Growers' Protective Association and the State Livestock Sanitary Board, the following scheduled district was decided upon in which all range stallions must be gathered on or before December 1, 1912, and all such range stallions must be kept off the below described district, as, otherwise, they will be castrated by the deputy veterinarians operating in this locality.

'Beginning at the point of crossing the Montana-Dakota Line, in Custer County, by the Chicago, Milwaukee and Puget Sound Railway; thence westerly along the Chicago, Milwaukee and Puget Sound Railway to Terry, in Custer County; thence in a line directly north to the Yellowstone River; then Northeasterly, following the Yellowstone River to Bad Route Creek; thence up Bad Route Creek to the top of the divide between the Yellowstone River and Redwater; thence northeasterly along the northern slope of this divide to the head of Fox Creek; thence directly easterly, following Fox Creek to the Yellowstone River; thence northerly again, follow the Yellowstone River to the point of crossing the Dakota Line; thence directly, southerly along the Dakota Line to the original point of starting, at the crossing of the Montana-Dakota Line by the Chicago, Milwaukee and Puget Sound Railway.'

Two range riders are to be supplied by the Eastern Montana Horse Growers' Protective Association, and who will be under the joint direction of federal and deputy veterinarians operating in the above described district.

M. E. KNOWLES,
State Veterinarian.
Secretary, Livestock Sanitary Board."

By request of our Sanitary Board, the Bureau of Animal Industry was requested, on discovery of this disease, to co-operate with us in its eradication. For this purpose, Federal Veterinarians Miller and Davidson were ordered to the Eastern end of our State, where, in conjunction with Doctors Cheney and DuFrene, a thorough canvass was made, covering as much territory as was possible during this year. Early in the breeding season of 1913, the territory is again to be covered by co-operation.

We hope, through co-operation of the Bureau of Animal

Industry, together with the valuable aid of the Eastern Montana Horse Growers' Protective Association, to stamp out this disease within a reasonable time. How long dourine has existed in Montana is problematical; presumably, however, for the past five or six years; possibly longer; but its clinical aspect is so uncertain and confused with so-called "Swamp fever" that it escapes detection by owners as well as veterinarians. Since the Federal Government is compensating, to a limited degree, owners of horses suffering from this disease slaughtered, it would seem the State should be urged to make sufficient appropriation to cover this compensation herself, without asking outside aid in this respect.

Compensation Recommendation.

I respectfully recommend to your most Honorable Board, that you adopt appropriate resolutions to be presented to our incoming Legislature covering this matter, as well as compensation for glandered horses and tubercular cattle, slaughtered under supervision of the State. I respectfully submit that the slaughter of cattle among some owners in the State; where 50 per cent and, in some cases, more, were discovered diseased and slaughtered; is a frightful burden on the individual, and has, in a number of instances, practically impoverished them. A large number of states having sanitary laws have compensation provisions; ranging from one to two-thirds actual value of the animal. This, you can see readily, is a matter of good public policy. It is to be hoped, most sincerely, that our incoming Legislature will look upon the matter in this regard, and make appropriations covering slaughter of all animals suffering from incurable diseases, and, especially, those diseases which are inimical or transmissible to mankind in any manner.

Blackleg Vaccine Distributed.

We have distributed 20,085 doses of blackleg vaccine in 1911; 24,580 doses in 1912; a slight increase over last year's distribution; an indication that cattle breeding is on the increase among our cattlemen. In all probablity, it will be most decidedly on the increase during years to come, under more intensive agricultural conditions.

Hog Cholera Serum.

Our State should certainly provide for the manufacture of hog cholera vaccine, if for no other reason than to encourage

the swine-growing industry in this State, where the possibilities for swine production of the highest possible quality and type is so promising; moreover, the State owes it to her agricultural interests to protect this rapidly growing industry from devastating inroads of this disease, (hog cholera) which, I regret to announce, has been very prevalent throughout the State during the past year. With a comparatively small appropriation, the Sanitary Board could establish a laboratory at Helena, manufacture potent anti-toxin, and distribute to our citizens at actual cost, which, I am sure, they would gladly pay.

Glanders.

There is a gratifying decrease in the number of cases of glanders encountered this year, as against last. This is due to the fact that in one instance, in the Eastern part of the State, a certain contractor harbored the disease among his animals for a number of years surreptitiously, having maintained them under such bad conditions that there was a large percentage of infections. With the Board regulations now regarding the mallein testing of horses, if the Legislature should see fit to make sufficient appropriation, it is quite within a possibility for us to stamp glanders out of Montana entirely within the next very few years.

Tuberculosis.

Tuberculosis situation in Montana at present is, fortunately, not a serious one, as the sub-joined tables show; only a few localities in which the disease exists to any great extent. As soon as it is possible for us to compensate the owners of such cattle, we will rapidly rid ourselves of this disease.

The happy result of our tuberculin test law and dairy inspection as shown by our Secretary of the State Board of Health is certainly most gratifying, and convincing evidence of the necessity for continuing this most humanitarian work; the saving of one hundred eighty-seven lives during a period of two years; certainly is an indication of the possibilities in store through the careful enforcement of this law.

Epizootic Abortion.

Epizootic abortion has existed in a number of localities during the past two years. All those reporting this condition have been furnished with the Board's circular and all obtainable advice. Am pleased to report that those who have fol-

lowed the Board's direction assiduously have had no difficulty in stamping this pest out of their herds.

Swamp Fever.

This baffling disease is existing to a relatively large extent in various localities in the State, and is almost invariably fatal. This malady is due to a filterable virus; therefore, its origin is difficult to determine; and, until such time as the origin of the disease may be positively determined, we will be absolutely in the dark as to its prevention.

I desire to here thank the Board for its uniformly courteous treatment and valuable advice furnished on numerous occasions. I further desire to compliment the Board on having such a number of capable, intelligent, self-sacrificing deputies. The work of your deputy veterinarians during the past two years has been of a most splendid character, painstaking, accurate and careful. It would seem impossible to select a more competent corps of deputy veterinarions than the Board now possesses. Much work has been accomplished by all of your deputies at great personal sacrifice, and I take this occasion to most sincerely thank the various deputies throughout the State for their courteous attention and assiduous labor in repressing animal disease.

I respectfully submit, herewith, a letter from a mother regarding the importance of dairy food and dairy milk, particularly from the viewpoint of the mother. Regard it sufficiently interesting to make a part of this report.

"Helena, Montana, December 1, 1912.

Dr. M. E. Knowles,
State Veterinarian,
Helena, Montana.

Dear Sir:

The subject of "Pure Food" is very vast, interesting and important; and, before going further with this paper, I wish to emphasize the importance and necessity of enforcing the laws so wisely and beneficially adopted to prevent the unscrupulous and dishonest dealer and purveyor from forcing all sorts of impure and low grade articles of food on the innocent and unsuspecting customer.

"Pure Food" embraces all articles of diet and other things intended for our use in sustaining and nourishing the human body. One of the chief and most important articles of food is milk, sterilized and pasteurized, which is deservedly regarded as a common and absolute necessity for every member

of the human family of all countries, races, climes, ages and social conditions. In domestic life, it is a great factor and of incalculable importance to the housewife and mother; and it is from the latter's standpoint, especially, that I desire to lay stress on milk as an article of food.

Milk manifests its great and invaluable usefulness at the earliest independent human existence; hence, we can readily see how much depends on its purity and standard of quality. We often see infants, their little bodies rounded and well nourished; little, round, rosy cheeks; eyes bright and dancing; and general conditions denoting that of health, and, as we observe them, we reach, at once, the conclusion that their mother nourishes them with good rich milk. On the other hand, when you meet with infants whose complexions are sallow; skin drawn or wrinkled; eyes dim, somewhat emaciated; lips and nails bluish, and, in place of the smile, a sickly and woebegone look on its thin little face; you will at once attribute the condition, (and rightly so) to the milk which the child imbibes from its mother, that it is impure and below grade.

In justice to and for the benefit of every child, milk should constitute its main article of diet until it has reached the age of three or four years; and this brings me to the consideration of pure milk necessary for the further development of the child, whether as artificial food for the infant, or proper diet for early childhood. In this connection, I wish to say it is not my intention, nor do I feel that it is the province of this humble paper to enter into graphic description of the sanitary conditions and processes necessary for pure milk, from the time the milker has prepared himself for his task until the article is delivered to the consumer, which would include:

Cleanliness and health of cows.
Cleanliness of stable; and air.
Cleanliness of milk house.
Cleanliness of milkers.
Scalding of utensils.
Wiping udders, and proper removal of milk.

These concern our efficient Health Boards and Milk Commissions, who, in conscientious execution of their duties, must see to it that the milk we feed our children shall be up to standard requirements, viz., not more than 86½ per cent of watery fluids, and 13½ per cent of solids, of which 4½ per cent must be butter fat. I cannot, here, attempt to consider the bacteriology of milk, but will say that where poisons kill a hundred, bacteria from milk of tubercular cows kill ten thousand; and, now, I will say, in conclusion, that it is an object of paramount importance to every mother and indispensable to the welfare of every child that it be fed pure, wholesome and unadulterated milk, and which will, in my humble opinion, result in the rearing of strong, healthy and independent American men and

women, who will, even more so than we, carry on the fight for "Pure Milk" and "Pure Food".

Very truly yours,
MRS. JEAN L. M. FISH."

Respectfully submitted.

M. E. KNOWLES,
State Veterinarian.
Secretary, Livestock Sanitary Board.

GLANDERS—1911.

COUNTY.	Horses Mallein Tested.....	Reacting.....	Condemned on Clinical Examination....	Destroyed.....
Beaverhead	190	.....	.....	.....
Carbon	51	.....	1	1
Cascade	166	.....	.....	.....
Chouteau	589	4	2	6
Custer	1172	17	9	26
Dawson	688	88	20	108
Fergus	189	14	11	25
Flathead	1	.....	.....	.....
Gallatin	90	1	.....	1
Granite	93	.....	.....	.....
Jefferson	6	.....	.....	.....
Lewis and Clark	133	.....	.....	.....
Lincoln	5	.....	1	1
Missoula	92	.....	.....	.....
Musselshell	1	1	.....	1
Park	191	8	.....	8
Ravalli	6	.....	.....	.....
Rosebud	2	.....	.....	.....
Sanders	1	.....	.....	.....
Sweet Grass	58	1	.....	1
Teton	8	2	6	8
Valley	56	.....	4	4
Yellowstone	34	11	8	19
Totals	3822	147	62	209

Percentage of reactors to Mallein test, 3.9.

Horses examined for Health Certificate	11,434
Horses clinically examined for contagious diseases and found free...	459
Horses Mallein tested	3,822
Horses condemned for glanders on clinical evidence	62
Total number horses examined	15,777

GLANDERS—1912.

COUNTY.	Mallein Tested.....	Complement-Fixation Tested.....	Reacting.....	Condemned on Clinical Examination....	Destroyed.....
Beaverhead	33	12	1	.....	1
Blaine	48	.....	.....	1	1
Cascade	1228	.....	1	.....	1
Chouteau	30	.....	.....	4	4
Custer	3067	20	10	.....	10
Dawson	262	26	13	1	11
Fergus	105	.....	8	.....	8
Hill	116	.....	.....	.....	.....
Lewis and Clark	210	1	3	.....	3
Madison	2	.....	.....	.....	.....
Missoula	29	.....	.....	.....	.....
Musselshell	30	15	21	1	22
Park	31	1	2	.....	2
Ravalli	124	.....	.....	.....	.....
Rosebud	6	.....	.....	.....	.....
Sanders	1	.....	.....	.....	.....
Silver Bow	32	.....	.....	.....	.....
Sweet Grass	41	.....	.....	.....	.....
Teton	142	.....	1	2	3
Valley	133	.....	.....	7	7
Yellowstone	447	.....	4	2	6
Totals	6117	75	64	18	79

Percentage of reactors to Mallein test, 1.4.

Horses examined for Health Certificate	3,952
Horses clinically examined for contagious diseases and found free	420
Horses Mallein tested	6,117
Horses condemned for Glanders on clinical evidence	18
Total number examined	10,507

DOURINE.

Horses examined for Dourine	575
Number complement-fixation tested	108
Number reacting	19
Number destroyed	18

TUBERCULOSIS—1911.

COUNTY.	Tuberculin Tested.....	Reacting to Test.....	Destroyed Account of Tuberculosis....	Carcasses Passed.....	Carcasses Condemned.....
Beaverhead	127	.....	.....	.....	.....
Cascade	889	97	86	46	40
Custer	30	2	2	1	1
Deer Lodge	531	83	81	66	15
Fergus	281	1	1	.....	1
Flathead	213	1	1	.....	1
Gallatin	349	2	2	.....	2
Jefferson	245	6	6	5	1
Lewis and Clark	820	21	21	11	10
Madison	24	1	1	.....	1
Meagher	78	11	11	6	5
Missoula	738	24	24	10	14
Musselshell	87	3	3	1	2
Park	414	58	(*) 52	19	33
Ravalli	506	18	18	10	8
Silver Bow	1836	464	456	384	72
Valley	6	.....	.....	.....	.....
Yellowstone	625	37	37	18	19
Totals	7799	829	802	577	225

Percentage of reactors to tuberculin test, 10.63.

Number cattle examined for physical Health Certificate	5,783
Number cattle tuberculin tested	7,799
Number cattle condemned for tuberculosis on physical examination	1
Total number cattle examined	13,583

(*) One cow condemned on clinical evidence.

TUBERCULOSIS—1912.

COUNTY.	Tuberculin Tested.....	Reacting.....	Destroyed.....	Carcasses Passed.....	Carcasses Condemned.....
Beaverhead	171	1	.....	....	.....
Broadwater	398	1	1	1	.....
Carbon	39	.....	.....	.....	.....
Cascade	17	1	1	1	.....
Custer	225	1	.....	.....	.....
Dawson	180	3	3	2	1
Deer Lodge	376	28	25	23	2
Fergus	7	.....	.....	.....	.....
Gallatin	318	3	3	1	2
Flathead	1210	2	2	.....	2
Hill	86	1	1	.....	1
Jefferson	450	160	159	147	12
Lewis and Clark	185	4	4	3	1
Lincoln	58	.....	(*) 1	. ....	1
Madison	399	9	5	2	3
Missoula	715	34	17	9	8
Park	15	.....	(*) 1	.....	1
Powell	596	9	9	8	1
Ravalli	608	2	2	2	.....
Silver Bow	1007	207	203	191	12
Valley	107	15	.....	.....	.....
Yellowstone	11	.....	.....	.....	.....
Total	7158	481	437	390	47

Percentage of reactors to Tuberculin test, 6.7.

Number cattle examined for Health Certificate	10,534
Number cattle Tuberculin tested	7,161
Number cattle condemned for Tuberculosis on clinical examination	2
	17,697
Total number cattle dipped in 1912	31,286

(*) Condemned on clinical evidence.

BLACKLEG VACCINE.

Number doses Blackleg vaccine distributed in 1911	20,085
Number doses Blackleg vaccine distributed in 1912	24,580

IMPORTATIONS.

STATE.	Number of Certifications... 1911	Number of Certifications... 1912	Number of Horses..... 1911	Number of Horses..... 1912	Number of Cattle..... 1911	Number of Cattle..... 1912	Number of Swine..... 1911	Number of Swine..... 1912
Arkansas	2	....	6	....	8	....	....	....
California	1	....	4	....	2	....	....	....
Colorado	22	13	140	83	28	5	....	....
District of Columbia	1	....	1	....	....	....	....	....
Idaho	13	30	65	210	11	33	....	18
Illinois	105	80	342	273	105	152	33	28
Indiana	12	8	22	13	17	9	5	....
Iowa	206	106	897	916	311	400	100	77
Kansas	31	26	96	83	63	99	....	3
Kentucky	2	4	....	8	78	1	....	....
Maine	1	....	2	....	2	....	....	....
Maryland	....	1	....	....	....	3	....	....
Michigan	10	7	21	18	8	12	2	....
Minnesota	284	227	965	897	903	1157	61	69
Missouri	56	65	182	221	104	170	22	22
Nebraska	69	85	415	396	161	251	21	20
Nevada	1	1	1	10	....	....	....	....
New York	4	....	5	....	47	....	....	....
North Dakota	380	348	1398	1907	808	653	19	33
Ohio	11	6	22	10	30	25	2	3
Oklahoma	12	9	39	40	2	2	5	1
Oregon	3	11	33	226	1	128	....	1
Pennsylvania	2	2	2	4	....	....	....	....
South Dakota	290	225	1239	1229	995	700	43	78
Tennessee	1	1	2	5	....	....	....	....
Texas	6	1	39	5	2	....	2	....
Utah	3	8	3	49	25	1	....	....
Washington	24	72	154	519	9	61	4	1
Wisconsin	215	154	694	347	752	620	34	39
Wyoming	3	30	15	331	....	10	....	....
Dominion of Canada	....	3	....	16	....	....	....	....
Totals	1770	1529	6804	7816	4472	4482	353	393